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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,037	06/28/2006	James F Woodhouse	11306-187US1	8059
26191 7590 01/02/2009 FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER TOUSSAINT, DALILA	
			ART UNIT 1794	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/550,037	Applicant(s) WOODHOUSE ET AL.	
	Examiner DALILA TOUSSAINT	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
 4a) Of the above claim(s) 27-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>November 13, 2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-26 and 43, drawn to method of making edible substrate.

Group II, claim(s) 27-42, drawn to a system of making edible substrate.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature in all groups is edible material onto a backing material having a thickness of 750 micrometers or less, and the edible material can be peeled away from the backing material. This element cannot be a special technical feature under PCT Rule 13.2 because the element is shown in prior art. US Patent Publication US2004/0043134 A1 teaches the process of making an edible thin film that has a thickness about 48-52 microns (page 8, ¶ 0115) and is a “peel and pull” type of product (page 4, ¶ 0074).

2. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above

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and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement

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will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. During a telephone conversation with Michael Hawkins on December 5, 2008 a provisional election was made without traverse to prosecute the invention of the method, claims 1-26 and 43. Affirmation of this election must be made by applicant in replying to this Office action. Claims 27-43 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 1-2, 5, 7-8, 10-13, 15, and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Corriveau et al. US publication 2004/0043134 A1** and further in view of **Stewart WIPO publication WO 95/01735**.

a. Referring to claim 1, 2, 15 and 43, Corriveau et al. teaches the method of making an edible substrate by casting of the material onto suitable carrier (backing material) using conventional coating technique including spraying (Corriveau et al.; page 4, ¶ 0076), slot die extrusion which is also known as slot coating (Corriveau et al.; page 3-4, ¶ 0068) and further disclose process of developing edible material (Corriveau et al.; page 6-8, ¶ 0096-000119). Once the carrier and film layer has been dried the film layer a “peel and pull” product is manufactured (Corriveau et al.; page 4, ¶ 0074) on which graphical designs can be placed on the edible film (Corriveau et al.; page 4, ¶ 0081). Corriveau et al disclose the dry thickness of the edible film to be 48-52 microns (Corriveau et al.; page 8, ¶ 0115), however, fails to explicitly disclose the viscosity of the edible material.

Corriveau et al. disclose the use of methylcellulose in its embodiment in which the film forming agent constitutes between 5% to about 60%. Stewart disclose the use of methylcellulose that imparts a wide range of viscosities (Stewart; page 10, line 7), also that while using methylcellulose, it is the predetermined ratio of water to hydroxypropyl methylcellulose that provides a pre-selected viscosity of the edible film (Stewart; page 11, line 5-6). Corriveau et al. and Stewart are analogous because they are edible films which are reinforced with a carrier. At the time the invention was made, it would have been obvious to one skilled in the art, having the teaching of Corriveau et al. and Stewart before him or her, to modify Corriveau et al to include the wide range of viscosities obtainable from methylcellulose of Stewart by following the guidance of Stewart. The motivation for doing so would be that the final properties of the edible film formed therefrom are as desired (Stewart; page 11, line 8-9), and because the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of parameters provided by prior art is the optimum condition to obtain the product that is desired. Note that both the references establish the wide-spread use of edible films/substrate technology in the food art.

b. Referring to claim 5, Corriveau et al. disclose the dry thickness of the edible film to be 48-52 microns (page 8, ¶ 0115).

c. Referring to claim 7 and 8, Corriveau et al. disclose the backing material to be a polymeric film such as polypropylene (page 3, ¶ 0067).

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d. Referring to claim 10, Corriveau et al. does not explicitly disclose how much weight the edible material is reduced during the drying step, however, it is notoriously well known in the art that edible flowable material that is dried to a moisture level of about 9-11% film, will have reduced weight. As Corriveau et al. uses like material in a like manner as claimed, it would therefore be expected that the edible film will have the same characteristics claimed, particularly the reducing weight from a liquid to a dried film, when the same amount of moisture appears to have been removed.

e. Referring to claim 11, Corriveau et al. teaches during the drying step the film reaching a moisture (water content) of about 9-11% (page 8, ¶ 0114) in a drying room. It can be expected that at least 91% of the water was removed, since the edible film originates in a solution.

f. Referring to claim 12, Corriveau et al. teaches the use of a slot die extrusion in which, it is possible to oscillate the die head to produce wavy lines on the product or laminate the films to produce various visual effects (page 3-4, ¶ 0068). Also in an embodiment, Corriveau et al. disclose after the coating step the film may be creased or scored perpendicular to the longitudinal lines, before exiting the drying system (page 4, ¶ 0071 and 0073). However, Corriveau et al. fail to explicitly disclose interrupting the slot extrusion to form a plurality of separate layers. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use the extrusion system to provide continuous or interrupted coating because such methods to provide a

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predetermined pattern of film coating were standard in the art of slot die extrusion.

g. Referring to claim 13, Corriveau et al. disclose, in paragraph [0073] to [0074], two embodiments: "the film may be creased or perforated by scoring the film along lines.... This can be accomplished with or without creasing its carrier backing." Since the reference teaches creasing the backing material also, then cutting both materials where the perforation occurs requires no more skill than that of a routineer.

7. **Claims 3-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Corriveau et al. US publication 2004/0043134 A1**, in view of **Stewart WIPO publication WO 95/01735**, and further in view of **Nakaya JP publication 04027354 A**.

h. Referring to claim 3, Corriveau et al. disclose that in its invention the edible film can be further processed at various points to include printing (Corriveau et al.; page 4, ¶ 0081 and page 2, ¶ 0034), however, it fails to explicitly disclose:

i. The method of claim 2, wherein printing an image comprises applying an ink by lithographic or gravure printing.

For instance Corriveau et al. disclose at page 4, ¶ 0081:

Further, the present invention allows the rolled films of the present invention to provide specialty edible thin films. These specialty edible thin films can be produced at various points during the film making process. A variety of

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products are possible, particularly those concepts which appeal to younger consumers. Types of specialty edible thin film products include, but are not limited to, films that are multi-flavoring, multi-layering, multi-coloring, multi-shapes or forms, texturizing, laminating, printing, graphical designs, "tongue-tattoos", oral sensations, varying dissolution profiles, bioadhesive components, within the oral mucosa of a consumer; alone or in combinations thereof. The edible thin films of the present invention are also suitable for food applications beyond direct consumption.

Nakaya teaches the use of a 500 micron stainless steel lithographic plate in the edible film printing process (Nakaya; Machine translation page 2, ¶ 04).

Corriveau et al. and Nakaya are analogous because they are preparing thin edible sheets by placing them on substrate. At the time of invention it would have been obvious to one skilled in the art, having teaching of Corriveau et al. and Nakaya before him or her, to modify Corriveau et al. to include the use of a lithograph to deposit edible ink of Nakaya, which, the reference states provides finer patterns (Nakaya; Machine translation page 2, ¶ 03).

i. Referring to claim 4, Corriveau et al. disclose that in its invention the edible film is suitable for food applications beyond direct consumption (Corriveau et al.; page 4, ¶ 0081), however, it fails to explicitly disclose applying the edible substrate to a baked good after removing the edible film from the backing.

Nakaya teaches an edible sheet with edible ink used to cover food or ornamenting a cake (Nakaya; page 3, ¶ 11). At the time the invention was made, it would have been obvious to one skilled in the art, having the teaching of Corriveau et al. and Nakaya before him or her, to modify Corriveau et al. to

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include depositing the edible sheet with ink onto a cake as in Nakaya. The motivation being to improve the appearance of the food and “differentiation with other goods” (Nakaya; machine translation page 3, ¶ 8-10).

8. **Claims 6, 9, 14, and 16-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Corriveau et al. US publication 2004/0043134 A1**, in view of **Stewart WIPO publication WO 95/01735**, and further in view of **Macpherson et al. US patent 5,017,394**.

j. Referring to claim 6, 9, and 17 Corriveau et al. fail to disclose the edible material as stable in low relative humidity environments and the edible material as stable when exposed to temperatures above 90 deg C. However, Macpherson et al. teaches the base shape (edible film) is softened by heat (Macpherson et al.; column 7, line 16) and/or moisture (Macpherson et al.; column 8, line 6), meeting the limitation of being non-flowable. Also, Macpherson et al. disclose the base shape composition being softened on foodstuffs that are molten (Macpherson et al.; column 7, line 14-23) or on cool iced cake (Macpherson et al.; column 8, line 14-16), in which, the foodstuff are likely to be below 0 deg C or above 100 deg C. Showing that the composition is stable, non-flowable and softens to conform to the food it is applied to. Since both reference are drawn to the same edible food material and have similar compositions, it can be reasonably expected that the material of the primary reference would behave in

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the same manner. It is beyond the ability and resources of the Office to prepare the edible films of Corriveau or of Stewart and compare these products with the claimed product in order to determine the physical properties or characteristics of the claimed product.

k. Referring to claim 14, 16, and 18-26, Corriveau et al. disclose the edible material comprising a large number of suitable water-soluble formulation, prepared by blending 5-60 wt% starch and/or stabilizers (Corriveau et al.; page 4-5, ¶ 0082), up to 2-10 % dry weight of softeners (plasticizers, Corriveau et al.; page 5, ¶ 0084), sweetening agents (texturizer), moisture (water), emulsifier, humectants and disintegrate (Corriveau et al.; page 5, ¶ 0083) to form a flowable mixture (Corriveau et al.; page 8, ¶ 0109). However, Corriveau et al. fail to explicitly teach the composition of each ingredient in the dry mix blend.

Macpherson et al. discloses a composition comprising 2.5 wt.% emulsifier, 2.5 wt.% plasticizer, 5 wt.% stabilizer, 18.75 wt.% humectants, 18.75 wt.% texturizer (sugar), 5 wt.% starch, and 36.25 wt.% water (Macpherson et al.; example 2). As such, it would have been obvious to one of ordinary skill in the art to modify the composition of Corriveau et al. to include the particularities of the other ingredients of Macpherson reference which shows the same ingredients for the purpose of improving the texture of the composition at a low cost and on a mass production basis (Macpherson et al.; column 1, line 25 and 53-58).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent (1998) establishes the state of the art in coating and films:

Note Van Lith et al.'s disclosure at col.7, lines35+:

These compositions may be applied utilizing standard extrusion type hot melt applicators including multi-bead extrusion and any type of coating equipment and methods including roll coating, slot die coating, noncontact slot coating, gravure coating, fiberization and spray coating including spiral spray coating. Patterns of coating are numerous and may be continuous or interrupted depending on the type of application and whether or not the composition is acting as a film, coating or adhesive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DALILA TOUSSAINT whose telephone number is (571)270-7088. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joesph Del Sole can be reached on (571)272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/C. SAYALA/
Primary Examiner, Art Unit 1794**

DT